

# MEMO

**DATE:** January 4, 2007

**TO:** Community, Economic & Human Development Committee

**FROM:** Ma'Ayn Johnson, Community Development Regional Planner, 213 236 1975  
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**SUBJECT:** Public Hearing Notice January 11, 2007 12:00-7:00 p.m. Integrated Regional Growth  
Forecast and Housing Needs Assessment Methodology

## BACKGROUND:

This is the second public hearing for the growth forecast and methodology. All comments received from previous hearings and during the public comment period will be considered. Staff will prepare the draft housing need allocation plan after the public hearing.

Reviewed by:

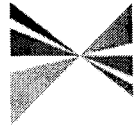
  
Act Division Manager

Reviewed by:

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Department Director

Reviewed by:

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Chief Financial Officer



**SOUTHERN CALIFORNIA  
ASSOCIATION of GOVERNMENTS**

## **Public Hearing Notice**

### **Integrated Regional Growth Forecast and Regional Housing Needs Assessment Methodology**

Conducted pursuant to Government Code Section 65584.04

**Thursday, January 11, 2007**

**12:00 p.m. – 7:00 p.m. \***

Southern California Association of Governments (SCAG)

Contact: Ma'Ayn Johnson 213-236-1975

SCAG Main Office  
818 W. 7<sup>th</sup> Street, 12<sup>th</sup> Floor  
San Bernardino Room  
Los Angeles, CA 90017

Video Conference Location  
SCAG, Riverside Office  
3600 Lime Street, Suite 216  
Riverside, CA 92501

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Public Notice is hereby given that the Southern California Association of Governments (SCAG) will conduct the second of two public hearings relating to the Integrated Regional Growth Forecast/Regional Housing Needs Assessment Methodology, at the date, time and location identified above. This public hearing is being held pursuant to Government Code Section 65584.04 and SCAG's public participation policies. This public hearing is part of SCAG's efforts relating to the Fourth Cycle of the Regional Housing Needs Assessment process and preparing a Regional Housing Need Allocation (RHNA) Plan as required by the State in order for local jurisdictions to prepare updated General Plan Housing Elements.

This public hearing will provide information regarding SCAG's proposed RHNA allocation methodology, as further described in the attachment to this Notice. The public hearing will also cover SCAG's analysis of the information and local input gathered at the Integrated Growth Forecast/RHNA workshops held in late October/November 2006. Finally, the public hearing will provide an opportunity for any member of the public to provide testimony regarding SCAG's proposed RHNA allocation methodology.

Additional information relevant to this public hearing may be found at:  
<http://www.scag.ca.gov/Housing/rhna.htm>.

\* SCAG reserves the right to conclude this public hearing before 7:00 p.m. in the event that members of the public have fully participated in the public hearing and have had an opportunity to provide public testimony.

## **Proposed Allocation Methodology for Regional Housing Needs Allocation (RHNA)**

The proposed allocation methodology for preparing the 4<sup>th</sup> cycle of the Regional Housing Needs Allocation (RHNA) (hereinafter referred to as the "Allocation Methodology") for the SCAG region is described in the following, and is intended to supplement the allocation methodology previously described and released by SCAG in October 2006 as part of the "Notice of Public Workshops Regarding SCAG's Integrated Growth Forecast/Regional housing Needs Assessment," a copy of which is attached herein as Exhibit "A." New developments affecting the Allocation Methodology are described herein, including the policy decisions recommended by RHNA Subcommittee and adopted by the Community, Economic, and Human Development Committee (CEHD) in November 2006.

### **Background and Status of RHNA Process**

As the region's council of governments, SCAG is responsible for allocating the state-determined regional housing need to all jurisdictions that comprise the SCAG region. The RHNA is a state mandate regarding planning for housing in California, rooted in the State Legislature's goal to expand housing opportunities and accommodate housing of California in all economic levels. The state, regional and local governments have a role to play in attaining this goal. The State of California, via the Housing and Community Development Department (HCD) determines each region's need for housing. Council of governments, such as SCAG, then allocate that regional need, for all income groups, amongst its jurisdictions. Local jurisdictions then plan for that need in their updated housing elements, which are stated-certified by HCD.

The Allocation Methodology is the tool used by SCAG to assign each jurisdiction in the SCAG region its share of the of the region's total housing need. It should be noted at the outset that SCAG and HCD continue to be in discussions regarding the forecast and total construction needs at the regional level. SCAG anticipates resolution of these issues to be concluded shortly, in order for SCAG to have the region's total housing need number.

SCAG, in the meantime, is proceeding with the RHNA process. As further described below, SCAG has completed fifteen (15) subregional/local jurisdiction workshops on the Integrated Growth Forecasts and RHNA between October 30 and November 14. While local considerations were initially incorporated as part of the Allocation Methodology, information and input received from the workshops, and additional discussions and comments with individual jurisdictions, are currently being assessed by SCAG which could affect the Allocation Methodology. It is staff's intent to complete its analysis of the information gathered from the workshops before the scheduled public hearing in January 2007, and to discuss what impact, if any, such information has on the Allocation Methodology.

### **Policy decisions by RHNA Subcommittee regarding Allocation Methodology, adopted by CEHD in November 2006**

While the Integrated Growth Forecasting process has adequately addressed most of the AB 2158 planning factors, it was staff's opinion that there certain factors requiring policy considerations for purposes of completing the Allocation Methodology. The CEHD established a RHNA Subcommittee to assist staff regarding these policy considerations. The RHNA Subcommittee was comprised of local elected officials, and considered the following factors:

- Farmworker housing needs
- Loss of at-risk low-income units
- Housing Cost
- Market Demand
- Fair Share/Over-concentration

With significant comments and inputs from the Programs and Plans Technical Advisory Committee (TAC), the RHNA Subcommittee' made recommendations regarding these factors and how whether they would be addressed in the Allocation Methodology. The recommendations of the RHNA Subcommittee were presented to and approved by the CEHD in November 2006 as follows.

### Farmworker Housing Needs

The housing needs of farmworkers are not always included in a housing allocation methodology. Farmworker housing needs are concentrated geographically and across farm communities in specific SCAG region counties and sub areas. The CEHD approved a policy that combines an existing housing need statement with giving local jurisdictions the discretion to deal with farmworker housing needs. This factor will not be addressed in SCAG's Allocation Methodology. Instead, SCAG will provide the farmworker housing need data for local jurisdictions to adequately plan for such need in preparing their housing elements. These data include:

- Farmworkers by Occupation;
- Farmworkers by Industry;
- Place of Work for Agriculture.

### Loss of At-risk Low-Income Units

The conversion of low-income units into non-low-income uses is not necessarily reflected in a housing allocation methodology. The loss of such units affects the proportion of affordable housing needed within a community and the region as a whole. There is an inherent risk of losing more affordable units in any one year than are allocated to be built, which severely impacts local housing accessibility for low-income households.

The CEHD approved a policy that combines an existing housing need statement with giving local jurisdictions the discretion to deal with this factor. This factor will not be addressed as part of SCAG's Allocation Methodology. Instead, SCAG will provide the data for this factor for local jurisdictions to adequately plan for the loss of at risk low income units in preparing their housing elements.

### High Housing Cost Burden

The CEHD approved the recommendation by the RHNA Subcommittee to assign more housing to high housing cost jurisdictions relative to lower cost jurisdictions based on vacancy rate differentials as recommended by the RHNA Subcommittee. The recommendation is to use the regional vacancy rate of 3.5% (HCD Low scenario), broken down by renter and owner-status, across all jurisdictions to adjust the future vacant unit need, with special adjustments for impacted communities with a high concentration of low income households. For these impacted communities, the lower of the Census vacancy rate or the 3.5% vacancy rate will be used. Collectively, this approach regarding the high housing cost burden will modestly increase housing stock in low vacancy, high housing cost communities versus other jurisdictions, and is based upon an ideal healthy market vacancy adjustment consistent with the State HCD low scenario, which assumes an ownership vacancy rate of 2.3% and a renter vacancy rate of 5%.

The mathematical equation for addressing this policy decision for purposes of the Allocation Methodology would be as follows:

*Construction Needs for each Jurisdiction (2005-2014):*

[Household Growth (2005-2014) + Replacement Needs (1997-2005)] +  
[Vacancy Rate Adjustment (3.5% = 2.3% for Owner, 5% for Renter)] –  
Adjustments for local jurisdictions where the share of very-low and low income household is greater than their county's share of very-low and low income households, and their vacancy rates are lower than the combined vacancy rate of 3.5%.

### Market Demand

The CEHD adopted the RHNA Subcommittee's recommendation that the Integrated Growth Forecast adequately address this factor and elected not to make any further adjustments relating to the market demand for housing and the employment to population relationship for purposes of the Allocation Methodology.

### Fair Share/Over Concentration

California housing law states that the regional housing allocation methodology must avoid or mitigate the over-concentration of income groups in a jurisdiction to achieve its objective of increasing the supply and mix of housing types, tenure, and affordability in an equitable manner, which would result in each jurisdiction receiving an allocation of units for low and very low income households [see, Govt. Code Section 65584(d)].

The CEHD adopted the recommendation from RHNA Subcommittee that each community should close the gap between their current income household distribution and the county median distribution, by specifically adjusting their respective levels to 110% of the county average. SCAG finds that this "fair share adjustment" would fully address the statutory planning requirement to achieve equity by moving to the county income distribution over the 2005-2014 planning period and avoid the further concentration of lower income households in "impacted" communities.

*Example of Allocation of Construction Needs by Income Category utilizing approved Fair Share Adjustment):*

Each jurisdiction will move 110% towards the county distribution in each of its four income categories. For example, based on county median household income in 2000 Census, a jurisdiction's income distribution is:

Very low (29.5%), Low (16.8%), Moderate (16.6%), Above moderate (37.1%),

The county distribution is:

Very low (24.7%), Low (15.7%), Moderate (17.1%), Above moderate (42.6%),

The final adjusted allocation for the jurisdiction by income category following the fair share adjustment is:

Very low:  $24.2\% = 29.5\% - (29.5\% - 24.7\%) \times 110\%$

Low:  $15.6\% = 16.8\% - (16.8\% - 15.7\%) \times 110\%$

Moderate:  $17.1\% = 16.6\% - (16.6\% - 17.1\%) \times 110\%$

Above moderate:  $43.1\% = 37.1\% - (37.1\% - 42.6\%) \times 110\%$

For the detailed analysis of the recommendations of the RHNA Subcommittee which were ultimately approved by the CEHD, please see the November 2, 2006 agenda and attachments for the CEHD Committee.

[http://scag.ca.gov/committees/pdf/cehd/2006/november/cehd110206\\_5\\_2.pdf](http://scag.ca.gov/committees/pdf/cehd/2006/november/cehd110206_5_2.pdf)

### **The Use of Input/Information from the Integrated Growth Forecasts and RHNA Workshops**

SCAG, in cooperation with the respective subregions within the SCAG region, held 15 public workshops between October 30 and November 14 for local jurisdictions, members of the public, and interested parties to provide input to SCAG with regard to:

- SCAG's development of its *draft* regional Integrated Growth Forecast and the resulting disaggregation of the Integrated Growth Forecast into smaller geographic levels [(County, subregion, city and TAZ (Transportation Analysis Zone))] based upon four major variables: population, employment, household and housing units.
- Refinement of SCAG's initial assessment of the housing capacity of cities as reflected in the Integrated Growth Forecast by further analysis of the AB 2158 planning factors required for SCAG's development of the Regional Housing Needs Assessment (RHNA).

Currently, SCAG is in the process of reviewing the information/input received from the workshops, scheduling and conducting additional meetings with local jurisdictions to discuss their concerns, and further facilitating public participation regarding the Integrated Growth Forecast/RHNA process. SCAG staff activities following the workshops include:

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1. Working with subregion partners, such as Riverside County (including WRCOG, Coachella Valley Association of Governments, and Riverside County), SANBAG, OCCOG, VCCOG, to incorporate their collective input from all their member local jurisdictions regarding the Integrated Growth Forecasts and RHNA plan.
2. Identifying and following up with local jurisdictions where recent growth trends, development patterns, and land use capacity could provide more growth than SCAG's initial assessment primarily based on local input from 2004 RTP growth forecasting process.

Staff intends to presents its analysis of the information/input gathered from the workshops, and whether this affects the Allocation Methodology, as part of the second public hearing relating to RHNA set for January 2007.

Finally, staff will also present information regarding any existing local, regional and state incentives available to those local jurisdictions that are willing to accept a higher share than proposed in the draft allocation plan.

## Exhibit "A"

### **Description of SCAG's proposed Allocation Methodology (Previously released by SCAG on October 6, 2006 as part of "Notice of Public Workshops regarding SCAG's Integrated Growth Forecast/Regional Housing Needs Assessment")**

The foundation of SCAG's proposed Allocation Methodology is the "Integrated Growth Forecast", which represents the most desired growth scenario for the Southern California region in the future because it ties housing to transportation planning. The growth scenario includes the size and distribution of growth in the SCAG region. It is based on a combination of recent and past trends, reasonable key technical assumptions, and existing and new local or regional policy options. The Integrated Growth Forecast at the regional and small area level are the basis for developing the Regional Transportation Plan (RTP), Environmental Impact Report (EIR), Compass Blueprint Plan, and the Regional Housing Needs Assessment (RHNA). The development of the Integrated Growth Forecast is driven by a principle of collaboration between the regional and local jurisdictions who are major contributors in the process. Integration of the output from the regional and local forecasts is achieved through joint efforts and collaboration among the various contributors.

In February 2005, SCAG's Community, Economic and Human Development Committee (CEHD) approved and directed staff to proceed with the 2007 RTP Growth Forecast Update Process, currently known as the 2007 Integrated Growth Forecasting process for the 2007 RTP/EIR/RHNA and Compass Blueprint. SCAG's Plans & Programs Technical Task Force (P&P TAC) also assisted in the process by providing technical and policy input. Policy Committees of the Regional Council were periodically informed of progress and provided direction to the process.

#### **Development of the Integrated Growth Forecast**

Development of the Integrated Growth Forecast involves several steps. This first step entailed an analysis of recent regional growth trends and the collection of significant local plan updates. A variety of large area estimates and projections are collected from federal and state governments. The major government sources included information from the following agencies:

- U.S. Department of Commerce, Census Bureau and Bureau of Economic Analysis,
- U.S. Department of Labor, Bureau of Labor Statistics,
- Internal Revenue Service (IRS),
- U.S. Citizenship and Immigration Services,
- Department of Health and Human Services,
- California Department of Finance (DOF),
- California Employment Development Department, and
- Information received through the Intergovernmental Review process.
- Small area estimates and projections were also available from aerial land use data, data from ES202, CTPP, general plan, parcel level data from tax assessor's office, building permits from Construction Industry Research Board and demolition data from the DOF.

The next steps involved the review and update of the 2004 regional growth forecast methodology used as part of SCAG's 2004 Regional Transportation Plan and key assumptions. The widely used methodology included the cohort-component method and the shift-share method. The key technical assumptions included updates regarding the fertility rate, mortality rate, net immigration, domestic in-migration, domestic out-migration, labor force participation rates, double jobbing rates, unemployment rates, and headship rates.

Thereafter, a review and update of existing regional growth policies and strategies, including Compass Blueprint strategies, economic growth initiatives, Goods Movement strategies, etc. were assessed. Relevant analysis also included general plan capacity analysis, demonstration projects, regional growth principles, polling and focus groups, and public workshops.

The next step is to develop and evaluate the draft regional Integrated Growth Forecast scenarios with small area distributions. Regional growth forecast scenarios are developed and allocated into the smaller geographic levels using public workshops. The small area distributions of the regional growth are evaluated using transportation and emission modeling results and environmental impact review.

The last step is to select and adopt a preferred regional growth forecast. A regional growth scenario with selected small area distributions is developed using transportation and environmental performance measures. The Regional Council adopts a regional growth forecast.

An organized forecasting decision making process is required to develop a consensus regional growth forecast in an efficient, open, and fair way. A variety of groups or input involved in the forecasting process include panel of experts, subregional/local review, stakeholders/data users, public outreach, technical committee, policy committee, and the Regional Council.

Consistent with the timelines and tasks specified in the forecasting process flow chart, Community Development/Forecasting staff, with helps from subregions, cities, and subregional coordinators, completed the following tasks during 2005.

1. Conduct survey of local jurisdictions regarding recent changes in general plan and developments that could affect the long term growth patterns envisioned in the 2004 RTP/Growth Vision policy forecast.
2. Provided Transportation Modeling Division the extended Year 2000 socio-economic data set for new model development and calibration.
3. Collaborating with subregions/local jurisdictions, reviewed and revised the 2003 base year small area distribution of employment, population, and household, and completed/delivered the 2003 extended socio-economic data set to Modeling Division.
4. Conducted survey of subregions/local jurisdictions regarding recent changes in general plan and developments that could affect the long term growth patterns envisioned in the 2004 RTP/growth vision policy forecast.
5. Requested and received inputs from subregions regarding their perspectives of future growth in population, employment and household.
6. Reviewed and presented recent trends in population, employment and household growth and completed preliminary 2007/08 RTP no-project growth forecasts at regional/county/subregion level.

So far in 2006, with additional assistance from the 2007 integrated growth forecasting consultant teams, the following major milestones were accomplished for the integrated 2007 RTP/EIR/RHNA growth forecasting process:

- January 2006: Working with consultant, convening the Panel of Experts to review and comment on 2007 RTP/EIR/RHNA growth forecast at regional/county/subregion level.
- February 2006: Counties/subregions and local jurisdictions are invited to present their perspectives on growth and any pertinent growth issues to SCAG staff and the Panel of Experts.
- March – August 2006: Presented the updated 2007 RTP/EIR/RHNA growth forecasts at region and county levels to the Plans & Programs Technical Advisory Committees and Panel of Experts (the process in developing the methodology is attached).
- September 7, 2006: Discussed the 2007 integrated growth forecasts at region/county level as well as forecasting and RHNA Pilot issues/questions with the Plans and Programs Technical Advisory Committee in their special meeting.
- September 14, 2006: The CEHD approved and directed staff to proceed with the disaggregation of the *draft* 2007 integrated regional/county forecasts into smaller geographic levels and scheduling of subregion/local jurisdiction workshops and inputs process.

For detailed procedures of developing baseline growth forecasts, please see:  
[http://scag.ca.gov/rtpac/pdf/2006/tac041806\\_SCAGBaselineForecast\\_Draft\\_r4.pdf](http://scag.ca.gov/rtpac/pdf/2006/tac041806_SCAGBaselineForecast_Draft_r4.pdf)

### **Development of Allocation Methodology**

For purposes of undertaking RHNA and developing an allocation methodology, SCAG has utilized the information generated as part of the development of the draft regional Integrated Growth Forecast. The Draft Integrated Growth

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Forecast of household growth in 2014 is the starting basis for RHNA planning. At the regional level, total regional household growth projected between 2005 and 2014, plus vacancy and replacement adjustments is the draft construction need for the region (see below for detail).

The household forecast for each county in year 2014 provided by the Draft Integrated Growth Forecasts is the start of the RHNA allocation plan at county level. Similarly, the household forecast for each jurisdiction, including unincorporated areas within each county in the year 2014 is the start of the RHNA allocation plan at jurisdictional level.

Each jurisdiction's household distribution using county level median household income based on Census 2000 is the starting basis for RHNA housing allocation plan by income category.

Consideration of several local AB 2158 planning factors has been incorporated in the draft Integrated Growth Forecast by way of analysis of aerial land use data, employment and job growth data from the ES202 data base, Census Transportation Planning Package data, general plan, parcel level property data from tax assessor's office, building permit, demolition data and forecast surveys distributed to local jurisdictions.

However, because the draft Integrated Growth Forecast arguably does not adequately address some of the AB 2158 factors, such as loss of units contained in assisted housing developments, high housing costs burdens, and the housing needs for farm workers, the allocation methodology will depend on the outcome of policy recommendations of SCAG's CEHD RHNA Subcommittee, which will be subject to review and approval by SCAG's Regional Council. In addition, the allocation methodology is dependent on obtaining additional information from local jurisdictions regarding the AB 2158 factors as a result of the subregional workshops. Planning factors not adequately incorporated in the integrated growth forecasting process may be addressed by adding data and/or statistics from 2000 Census to the "existing needs" portion of the RHNA, or through application of policy recommendations.

Specifically, the AB 2158 factors have been considered in the draft Integrated Growth Forecast Process as follows:

- (1) Each member jurisdiction's existing and projected jobs and housing relationship

*The resulting job/housing relationships are appropriately maintained for all local jurisdictions throughout the forecasting/planning horizon.*

- (2) The opportunities and constraints to development of additional housing in each member jurisdiction, including all of the following, (i) lack of sewer or water service due to laws or regulations, (ii) the availability of land suitable for urban development or for conversion to residential use, (iii) lands preserved or protected from urban development under governmental programs designed to protect open space, farmland, environmental habitats, and natural resources on a long-term basis, and (iv) county policies to preserve prime agricultural land within an unincorporated area:

*The Integrated Growth Forecasting Process started with extensive survey of all local jurisdictions regarding their land use and constraints. All subregions/local jurisdictions are invited to provide SCAG their respective growth perspective and inputs. In addition, Compass 2% growth opportunity areas are identified throughout the region to redirect growth favoring an urban form consistent with regional mobility and air quality goals.*

- (3) The distribution of household growth assumed for purposes of a comparable period of regional transportation plan and opportunities to maximize the use of public transportation and existing transportation infrastructure.

*The distribution reflects the results of the "Integrated Growth Forecasts."*

- (4) The market demand for housing

*All indicators of market demand, such as trends of building permits, household growth, employment growth and population growth are built in the forecasting methodology and model throughout all geographic levels.*

- (5) Agreements between a county and cities in a county to direct growth toward incorporated areas of the county

*This is addressed through extensive survey of all local jurisdictions and subregion/local jurisdiction inputs/comments process.*

(6) The loss of units contained in assisted housing development.

*Not addressed in the draft Integrated Growth Forecast.*

(7) High housing costs burdens.

*Not addressed in the draft Integrated Growth Forecast.*

(8) The housing needs of farmworkers.

*The Integrated Growth Forecasts did provide projection of agricultural jobs (wage and salary jobs plus self employment) by place of work. The corresponding requirements of workers were also provided by place of residence. There is no information regarding the forecasts of migrant workers.*

(9) Others factors adopted by the council of governments.

*To date, SCAG has not adopted any other planning factors to be considered as part of the allocation methodology.*

To date, the draft allocation methodology is based upon the draft Integrated Growth Forecast having produced four major variables: (1) Population; (2) Employment; (3) Households and (4) Housing Units, broken down into the following geographic levels: SCAG region, County, Subregion, Local jurisdictions, and Transportation Analysis Zone (TAZ). All variables will be published for the region, county, subregion, and TAZs at five year increments. For the RHNA planning purpose and requirements, city level figures will also be provided for the year 2014.

**Draft methodology at the regional level [REVISED—based on policies adopted by CEHD on November 2, 2006]:**

Total regional construction needs between 2005 and 2014 = Household growth between 2005 and 2014 adjusted by (1) 2000 Census vacancy rates and (2) replacement needs based data from the Department of Finance (DOF).

SCAG Region household growth between 2005 and 2014: 678,873

*(Source: Draft 2007 Integrated Growth Forecast)*

Replacement Needs: 29,661

*(Source: Based on the nine-year average between 1997 and 2005 of demolition permits reported to the DOF.)*

Vacancy rate: 3.5% = Owner vacancy rate: 2.3%, Renter vacancy rate: 5.0%, with adjustments for local jurisdictions where the share of very low and low income household is greater than their county's share of low and very low income household, and their vacancy rates are lower than the combined vacancy rate of (3.5%)

*(Source: CEHD policy adopted on November 2, 2006)*

Total Regional Construction Needs (2005 – 2014):

[678,873: Household Growth (2005-2014) + 29,661: Replacement Needs (1997-2005)] +  
[24,975: Vacancy Rate Adjustment (3.5% = 2.3% for Owner, 5% for Renter) 24,975] –  
3,224: Adjustments for local jurisdictions where the share of very low and low-income household is greater than their county's share of low and very low income household, and their vacancy rates are lower than the combined vacancy rate of (3.5%).

**= 730,105**

**Draft allocation methodology at all levels below the region:**

Repeat the above procedures, except utilizing county, subregional, and city level figures.

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### **Draft Forecasting/Allocation Methodology at the Region/County Level:**

The allocation results of the four major variables—population, households, employment and housing units—from the Integrated Growth Forecasts are attached for subregion/local jurisdiction workshops. Following are simple description of the methodology.

The regional policies in terms of long term transportation projects funded by private sector investment and Compass 2% land use policies are *not* projected to affect regional, county, subregion, and city level growth of population, household, employment, and housing units before 2015. Compass 2% land use strategies are voluntary they only direct growth redistributions within city boundaries before 2015.

#### **A. Population forecasts**

Two factors account for population growth: natural increase (which is the balance between births and deaths) and net migration (which is the balance between the number of people coming and leaving the region).

Net migration is differentiated between domestic migrants (people moving in and out of the region to other parts of the nation, immigrants (legal and undocumented) moving to the region from other countries.

$$\text{2030 POPULATION} = \text{2000 POPULATION} + \text{NATURAL INCREASE} + \text{NET MIGRATION}$$

SCAG projects regional population using the cohort-component model. The model computes the population at a future point in time by adding to the existing population the number of group quartered population, births and persons moving into the region during a projection period, and by subtracting the number of deaths and the number of persons moving out of the area. This process is formalized in the demographic balancing equation.

The fertility, mortality and migration rates are projected in five year intervals for eighteen age groups, for four mutually exclusive ethnic groups: Non-Hispanic White, Non-Hispanic Black, Non-Hispanic Asian and Hispanic. The birth rates are also projected by population classes: residents (and domestic migrants) and international migrants.

SCAG links population dynamics to economic trends, and is based on the assumption that patterns of migration into and out of the region are influenced by the availability of jobs. The future labor force supply is computed from the population projection model by multiplying civilian resident population by projected labor force participation rates. This labor force supply is compared to the labor force demand based on the number of jobs projected by the shift/share economic model.

The labor force demand is derived using two step processes. The first step is to convert jobs into workers using the double job rate. The double job rate is measured by the proportion of workers holding two jobs or more to total workers. The second step is to convert workers into labor force demand using the ideal unemployment rate. If any imbalance occurs between labor force demand and labor force supply, it is corrected by adjusting the migration assumptions of the demographic projection model. Adjustment of migration assumptions is followed by total population changes.

The county forecasts are developed by analyzing the difference between the sum of initial county forecasts and the regional independent projections. If results are significantly divergent, input data at the county level is adjusted to bring the sum of counties projection and the regional independent projections more closely in line. Complete agreement between two projections is not mandatory. After analysis, the sum of counties constitutes the regional forecasts.

#### **B. Employment forecasts**

Employment forecasts utilize a top down procedure starting with a U.S. forecast, followed by California, and finally the SCAG region and counties. The regional employment forecasts will interact with the regional population forecasts.

The first step is to project the U.S. labor force based on projections of total population and labor force participation rates. Total jobs are projected from total labor force, unemployment rate, and the ratio of total jobs to employed residents. Total jobs are then projected to a one-digit industry code based on historical trends of the one-digit shares of U.S. total jobs.

The second step is to forecast California total jobs for each forecast year based on U.S. total jobs and the job share of California to U.S. for each forecast year. California total jobs are then projected to the one-digit industry code based on historical trends in the one-digit shares of California total jobs.

The third step is, to forecast regional total jobs for each forecast year based on California total jobs and the job share of the SCAG region to California for each forecast year. Total jobs are then projected to a one-digit industry code based on historical trends in the one-digit share of SCAG regional total jobs.

The fourth step is to forecast county total jobs for each forecast year based on regional total jobs and the job share of each county to the SCAG region for each forecast year. Total jobs are then projected to a one-digit industry code based on historical trends in the one-digit share of county total jobs. The preliminary are adjusted by future aging patterns and related labor force patterns of each county.

### C. Household Forecasts

A household includes all the persons who occupy a housing unit as their usual place of residence. By definition, the count of households or householders is the same as the count of occupied housing units for 100-percent tabulations.

SCAG projects regional households by using headship rate method. The projected households at a future point in time are computed by multiplying the projected resident population by projected headship rates. The headship rates are projected by age, sex, and race/ethnicity.

Headship rate is the proportion of a population cohort that forms the household. It is specified by age and ethnicity. Headship rate is projected in five year intervals for seven age groups (for instance, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75+), for four mutually exclusive ethnic groups.

### D. Household Unit Forecasts

A housing unit is a house, an apartment, a mobile home or trailer, a group of rooms or a single room occupied as separate living quarters or, if vacant, intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from outside the building or through a common hall. Both occupied and vacant housing units are included in the housing unit inventory.

A housing unit is vacant if no one is living in it at the time of enumeration, unless its occupants are only temporarily absent. Units temporarily occupied at the time of enumeration entirely by persons who have a usual residence elsewhere are also classified as vacant. Vacant units include vacant units for: sale only; rent only; seasonal, recreational, or occasional use; migrant workers; rented or sold, not occupied; other.

SCAG projects regional housing units by using "total vacancy rate method." The projected housing units at a future point in time are computed by dividing the projected households by occupancy rates (e.g., 1- total vacancy rates). Total vacancy rate is calculated by dividing the number of total vacant units by the number of total housing units.

For detailed methodology and assumptions of the Integrated Growth Forecasts at regional level, please see:

[http://scag.ca.gov/rptac/pdf/2006/tac031606\\_SCAGBaselineForecastREV0404.pdf](http://scag.ca.gov/rptac/pdf/2006/tac031606_SCAGBaselineForecastREV0404.pdf)

and at county level, please see:

[http://scag.ca.gov/rptac/pdf/2006/tac041806\\_SCAGBaselineForecast\\_Draft\\_r4.pdf](http://scag.ca.gov/rptac/pdf/2006/tac041806_SCAGBaselineForecast_Draft_r4.pdf)

### E. Considering Policy Impacts

It should also be noted that the regional policies in terms of long term transportation projects funded by private sector investment and Compass 2% land use policies are *not* projected to affect regional, county, subregion, and city level growth of population, household, employment, and housing units before 2015. Compass 2% land use strategies are voluntary they only direct growth redistributions within city boundaries before 2015.

Preliminary 2004 RTP growth forecasts update is completed by incorporating two regional policies into the baseline growth forecasts. There are two regional policies that will affect future size and distribution of baseline forecasts of employment, population, households, and housing units: one is Compass/Blueprint; the other one is private sector investment.

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Given the fact Compass/Blueprint does not affect the growth and distribution at the county level, the private sector investment only will be considered to influence the future growth and distribution at the county level.

First, the regional job impacts of private investment are calculated for 20 NAICS sectors (by 2-digit) based on input-output analysis. These job impacts are distributed to counties based on growth share methodology for each sector.

Second, further adjustment was made based on 2004 RTP job distribution. Third, the regional job impacts are translated into the regional population adjustment using the economic-demographic model. Additional population is distributed to counties following the additional household adjustment.

Fourth, population adjustment is translated into households by using the household projection model. The regional household adjustment is distributed to counties following the county distribution of additional jobs.

Fifth and last, additional household adjustment is translated into housing units by using the total vacancy rate. The regional housing unit adjustment is distributed following the county distribution of additional households.

Please see [http://scag.ca.gov/rtptac/pdf/2006/tac081706\\_Forecast.pdf](http://scag.ca.gov/rtptac/pdf/2006/tac081706_Forecast.pdf) for assessing regional policy impacts and allocating county distribution.

#### **Draft Forecasting/Allocation Methodology at City Level:**

The overall framework for the city level demographic forecasts is provided by the household (occupied housing units) method. This approach is widely accepted and applied in forecasting socioeconomic growth for smaller geographic areas. The household method consists of the following three major projection components: housing units, households (occupied housing units) and population.

##### **A. Population Forecasts**

City population is projected as the group quarters population plus the product of households and average persons per household (PPH). The average number of persons per household is projected using the historical trend and the updated county PPH. Group quarters population is projected using its ratio to total population from the 2000 Census, which is assumed to remain constant during the projection horizon.

##### **B. Employment Forecasts**

The distribution of county jobs to city applies a "constant-share" approach to calculate city employment. Based on constant-share approach, city job growth is a function of city share to county jobs for each sector and future county job growth. If a city in Los Angeles county is specialized in a specific industry (e.g., manufacturing), its future job growth will be affected by future reduction of manufacturing jobs of Los Angeles county. The constant-share approach provides a reasonable job estimates for the future, which form a reasonable basis for future subregional input process.

##### **C. Household Forecasts**

The draft city household forecasts reflect long term growth patterns incorporated in the 2004 RTP forecasts, recent trends, and updated county household forecasts.

- Each local jurisdiction's household growth was first projected by using the "Constrained Exponential Growth Equations" with their respective long term historical trend data between 1980 and 2000.
- "Constrained" in the above methodology is to ensure that all local jurisdictions add up to county total.
- Provide the projected household growth to all local jurisdictions for comments and inputs and make adjustments accordingly.
- Adjust forecasting errors—actual 2005 vs. forecasted 2005—and apply to 2035.
- Control to revised county forecasts from the 2007 Integrated Growth Forecasts.

The household forecast for all local jurisdictions and unincorporated areas are attached for subregion/local jurisdiction workshops. The household growth between 2005 and 2014 forecasted for each local jurisdiction, plus replacement and vacancy adjustment is the starting allocation for the RHNA construction need.

D. Housing unit Forecasts

The projected housing units are computed by using the projected households and *total vacancy rate*. The city level total vacancy rate is based on the 2000 Census, and it is assumed to remain constant during the projection horizon.